NAVSHIPREPFAC YOKOSUKA
LOCAL STANDARD ITEM

FY-00

ITEM NO: 099-32YO
DATE: 01 JUL 1999
CATEGORY: II

1. SCOPE:

1.1 Title: Cleaning and Painting Requirements; accomplish

2. REFERENCES:

a. Occupational Safety and Health Administration (OSHA), 29 CFR 1915 Subparts C and Z

b. S9086-VD-STM-010/020/030/CH-631, Volumes 1, 2 and 3, Preservation of Ships in Service (Surface Preparation and Painting)

c. Systems and Specifications, Steel Structures Painting Manual Volume 2

d. S9086-VG-STM-000/CH-634, Deck Coverings

e. S9086-CN-STM-020/CH-79 Volume 2, Damage Control - Practical Damage Control

f. S9086-RK-STM-010/CH-505, Piping Systems

g. ASTM D4417, Standard Test Methods for Field Measurement of Surface Profile of Blast Cleaned Steel

3. REQUIREMENTS:

3.1 Consider marine coatings to contain heavy metals (e.g., lead, zinc, copper, tin, cadmium, or chromium) and/or toxic or hazardous substances.

3.1.1 Submit four legible copies of the laboratory analysis listing results of personnel monitoring to NAVSHIPREPFAC within 10 working days of any such testing.

3.1.1.1 Personnel monitoring shall be managed by a qualified person [e.g., Health Supervisor (EISEI-KANRI-SHA), Industrial Doctor (SANGYOU-I), Pubic Health Engineering Supervisor (EISEI-KOUGAKU-EISEI-KANRI-SHA)] or Industrial Hygiene Consultant (ROUDOU-EISEI-KONSARUTANTO), and accomplished by a Work Environmental Investigator (SAGYOU-KANKYOU-SOKUTEI-SHI).

3.1.2 Submit four legible copies of a report when no personnel monitoring was conducted, which provides the basis for

such a decision not to engage in personnel monitoring, e.g., insufficient time (less than 7 hours) is available to conduct personnel air monitoring.

3.2 Accomplish the safety precautions as specified in 2.a, 2.b, and the Job Order during surface preparation and the application or removal of marine coatings.

3.2.1 Accomplish application or removal of marine coatings in accordance with federal and local laws and regulations.

3.3 Provide a written notice to NAVSHIPREPFAC and the ship's Commanding Officer's designated representative of potential exposure of personnel to toxic or hazardous substances.

3.3.1 Post the notice at the ship's Quarterdeck or other designated location for each job or separate area at least four hours, but not more than 24 hours, prior to the start of work.

3.3.2 The notice shall contain the following information:

3.3.2.1 Ship's name and hull number.

3.3.2.2 Work Item number.

3.3.2.3 Compartment or frame number.

3.3.2.4 Identification of hazard.

3.3.2.5 Date and time of work process.

3.3.2.6 Identification of engineering and work practice controls.

3.3.3 Notify the ship's Commanding Officer's representative of work planned over a weekend or Monday following that weekend not later than 0900 on the Friday immediately preceding that weekend.

3.3.4 Notify the ship's Commanding Officer's representative of work planned on a U.S. federal holiday and on the day following the federal holiday not later than 0900 on the working day preceding the federal holiday.

3.4 Select the specific requirements of 2.b, 2.c, and 2.d listed in the application of Tables One through 18 of this item for determining the type of surface preparation required and coating system options that are available for use in accomplishing the work specified unless otherwise directed in the Work Item.

3.4.1 For disturbed and/or partially preserved areas, the minimum surface preparation shall be that shown in the applicable Tables, except that an SSPC-SP-11 is acceptable for areas originally requiring an SSPC-SP-10.

3.4.1.1 Deviations to the requirements may be authorized by NAVSHIPREPFAC based on size, locations, application, or severity of condition of coating system being applied.

3.4.1.2 Disturbed areas are defined as any surface that requires cleaning and/or painting due to existing paint finish being damaged in the accomplishment of work specified by the Job Order.

3.4.1.3 Closure plates/hull accesses and their associated welds will not be considered a disturbed surface and shall be cleaned and painted by the applicable table.

3.4.1.4 Coating systems for disturbed areas shall be applied in accordance with the applicable tables.

3.4.2 Remove foreign matter and debris resulting from cleaning operations.

3.4.3 Feather edges of well adhered paint remaining after cleaning.

3.4.4 Limit surfaces being prepared for preservation in size to an area which can be coated prior to the occurrence of flash rusting and/or oxidation. Remove any flash rust prior to painting, except as follows:

3.4.4.1 Hydroblasted surfaces shall meet the applicable hydroblast standard for flash rust.

3.4.5 Clean insulation and lagging free of foreign matter and contaminants that would prevent adherence of paint prior to painting.

3.4.6 Clean prepared and previously painted surfaces free of foreign matter which will affect adherence of paint coatings.

3.4.7 Install masking material for protection of equipment and items not to be painted during preservation. Shipboard items not to be painted are listed in Paragraph 631-8.22 of 2.b.

3.4.8 Apply an additional coat of any single coat of a multiple coat system when that coat measures less than its specified dry film thickness (DFT). Multiple coats shall be of contrasting color. Dry film thickness of each coat, including an additional coat if applied, shall not exceed the specified maximum thickness for each coat.

3.4.9 Remove masking material and paint overspray after cleaning and painting operations are completed.

3.4.10 Abrasive blast equal to an SSPC-SP-10 of 2.c and prime steel and aluminum plates, shapes, and ferrous piping prior to shipboard installations except in the areas where weld joints remain to be accomplished, or unless specified otherwise in the invoking Work Item.

3.4.11 Submit material certification of abrasive blast media conforming to MIL-PRF-22262 prior to blasting. The abrasive blast medium must be listed on the Qualified Products List (QPL) QPL 22262, or have written notification from NAVSEA 03R42 that it meets the requirements of MIL-PRF-22262.

3.4.12 Record and restore existing painted labels, compartment designations, hull markings, and other painted information which will be removed or covered during cleaning and painting operations.

3.4.13 For non-skid coatings, surface preparation methods outlined in Paragraph 634-3.28 of 2.d must be strictly followed.

3.4.14 When surface profile requirements of the manufacturer's instructions are greater than that specified in this item, they shall supersede this item.

3.5 Submit one legible copy of a time schedule prior to the start of preservation operations for the application of each coat for the following coating systems (including stripe coating where applicable):

TABLE	LINE
One and 2	All
3	7
4 through 9	All
10	4
11	All
16	All
17	All

(V) or (I)(G) "SURFACE PREPARATION" (See 4.4 for criteria)

3.6 Verify surface preparation for the coating systems specified in 3.5.

3.6.1 For Table 2, Lines 3 and 4, and Table 9, Line 4, non-skid coatings, complete Surface Preparation Quality Assurance Checklist in Paragraph 634-3.36.4 of 2.d.

3.6.1.1 Submit the original and two legible copies of each completed check list to NAVSHIPREPFAC Quality Assurance Office Code 133.2, upon completion of surface preparation.

(I)(G) "CONDUCTIVITY AND CHLORIDE MEASUREMENT"

3.6.2 Accomplish conductivity and chloride measurements for the following Tables and Lines:

TABLE	LINE
One	All
2	All except 12
6	All
7	One through 3
8	All
9	3 & 4
16	All
17	2

3.6.2.1 Accomplish surface chloride checks and conductivity checks using available field or laboratory test equipment on the freshly prepared surface. These chloride and conductivity checks shall be sampled and/or accomplished in close proximity to each other. These readings shall be recorded for comparison. Measurements shall be made randomly over the prepared surface. Three measurements per 100 square feet ($9m^2$) over the first 500 square feet ($45m^2$) and one measurement every 1,000 square feet ($90m^2$) for the remainder of the area shall be made. For immersed applications, chloride measurements shall not exceed 3 micrograms per square centimeter ($30mg/m^2$) nor shall the conductivity measurements exceed 60 microsiemens. For non-immersed applications, chloride measurements shall not exceed 5 micrograms per square centimeter ($50mg/m^2$) nor shall the conductivity measurements exceed 100 microsiemens. If the chloride or conductivity measurements exceed the respective values, water wash the affected areas with fresh water. Dry the affected areas and remove all standing water. Accomplish surface chloride and conductivity checks on the affected areas. Repeat step until satisfactory levels are obtained. Flash rust/surface oxidation is prohibited for tanks, floodable voids, non-skid and well deck overhead applications and must be removed. All other areas shall not exceed light, tightly adherent flash rust.

3.6.2.2 Consider reagent used for titration to contain mercury. Control and dispose of the used reagent in accordance with applicable laws. NAVSHIPREPFAC Quality Assurance Office, Code 134 shall dispose of them when the reagent is brought in.

3.6.2.3 Submit four legible copies of a report listing results of the requirements of 3.6.2.1 to NAVSHIPREPFAC upon completion of each measurement.

(V) or (I)(G) "FILM THICKNESS" (See 4.4 for criteria)

3.7 Measure dry film thickness (DFT) of each coat applied for the coating systems listed in 3.5. Wet film thickness (WFT)

readings are required in lieu of dry when the system requires application of a tack coat. Refer to film thickness conversion table in 2.c. See 4.5 for calculation of a film thickness.

3.7.1 For Table 2, Lines 3 and 4, and Table 9, Line 4, non-skid coatings, complete Primer Application Quality Assurance Checklist in Paragraph 634-3.36.5 and Non-Skid Application Quality Assurance Checklist in Paragraph 634-3.36.6, and Color Topping Application Quality Assurance Checklist in Paragraph 634-3.36.7 of 2.d.

3.7.1.1 Submit the original and two legible copies of each completed check list to NAVSHIPREPFAC Quality Assurance Office Code 133.2, upon completion of each step.

3.8 Drying time between coats of specified coating for potable and feedwater tanks shall be a minimum of 48 hours at a minimum temperature of 70 degrees Fahrenheit, using heated air if necessary to maintain temperature. Ventilation shall be sufficient to ensure continuous flow of air through the tanks with at least one complete air change every four hours. Mixing and stand-in times (induction times) shall be in accordance with manufacturer's instructions.

3.8.1 Cure potable and feedwater tank coatings for at least seven consecutive days prior to filling with water. Maintain a temperature of 70 degrees Fahrenheit within the tanks. Ventilation shall ensure continuous flow of air with a minimum of one complete air change every four hours.

3.8.1.1 Freshly painted potable water tanks shall be rinsed at least twice with fresh water to ensure cleanliness of tank.

(I)(G) "INSPECT TANK"

3.8.1.2 Inspect tank for cleanliness and coating integrity.

3.9 Mix and apply the approved proprietary coatings in accordance with manufacturer's instructions, except for requirements when invoked for surface preparation and minimum DFT as specified in Tables One, 4, 5, 6, 7, and 15.

3.10 Mix and apply the Navy Polyamide Epoxy MIL-P-24441 coatings in accordance with the following, except the DFT shall be as specified in Tables One through 11, 14 and 15. The requirements of 3.10.3 and 3.10.3.1 also apply to manufacturers' proprietary coatings.

3.10.1 The MIL-P-24441 coatings mixing ratio is one-to-one by volume. The components of the various formulas are not interchangeable.

3.10.2 Blend each component thoroughly prior to mixing the components. After mixing equal volumes of the two components, the mixture must be thoroughly stirred, and the stand-in times listed below must be observed.

3.10.2.1 Stand-in time (induction time) is defined as the time immediately following the mixing of the components A and B during which the critical reaction period of these components is initiated and is essential to the complete curing of the coating. During stand-in time the mixture must be thoroughly stirred at least once every 20 minutes to avoid hot spots caused by localized overheating from the chemical reaction.

Surface (Temperature at Job Site) Degrees Fahrenheit	Stand-In Time in Hours(as required)
35 to 50	Two hours at 70 degrees Fahrenheit (paint temperature)
50 to 60	Two hours at job site temperature
60 to 70	One hour to 1-1/2 hours at job site temperature
70 and Above	1/2 to One hour at job site temperature

3.10.3 Apply the first coat of MIL-P-15931 (Formulas 121/129) or MIL-PRF-24647 antifouling paint when the last coat of epoxy paint is still slightly tacky (approximately four to six hours after paint application). If the epoxy is hard (usually eight hours after application), apply a tack coat of epoxy paint one to two mils WFT over previously painted surfaces. Allow to dry four hours and apply the antifouling paint. Above also applies to application of any non-epoxy system over an epoxy coating.

3.10.3.1 Tacky is defined as that curing (drying) stage when a fingertip pressed lightly against the film leaves only a slight impression and none of the film sticks to the finger.

3.10.3.2 If the overcoat window (seven days) has elapsed between preservation coatings of epoxy, the surfaces shall be cleaned with fresh water and detergent and rinsed with fresh water. Light sand (scarify) the surface and wipe with a solvent. For all epoxy coatings except for solventless edge retention coatings (Sigmaguard BT and Sherwin-Williams Dura-Plate UHS), apply a tack coat, one to two mils WFT, of the last coat applied within four hours prior to applying the next full coat of the system. For solventless edge retention coatings after the fresh water rinse, surface abrading, and solvent wipe, do not apply a tack coat prior to applying the next full coat of the system.

3.10.3.3 Brush-off blast MIL-P-24441 epoxy coating which has been applied for over 30 days prior to applying the next coat of the system.

3.11 For epoxy coatings which have been applied for over 30 days, accomplish cleaning as described in 3.10.3.2 (including sanding and solvent wiping) and brush-off blasting. Apply a one to two-mil WFT tack coat of the last coat applied prior to application of the next full coat as directed by NAVSHIPREPFAC. For solventless edge retention coatings, fresh water rinse the surface and abrade, solvent wipe, and apply the next coat.

3.11.1 Comply with the time requirements of 2.d for application of non-skid over primer coat.

3.12 Record and maintain records in accordance with Section 11 of 2.b and Paragraph 634-3.36 of 2.d, containing the required information on preservation of freeboard and, hangers, flight, catapult, and vertical replenishment decks, chain lockers, underwater hull surfaces of the ship, and interior surfaces of tanks, voids, cofferdams, well deck overheads, and bilges.

3.12.1 Surface preparation method, including name of abrasive and QPL 22262 revision number from which the product was purchased, or copy of NAVSEA 03R42 product approval letter.

3.12.2 DFT for each coat shall be taken in accordance with Method PA-2 of 2.c.

3.12.2.1 WFT readings are required in lieu of dry when the system requires application of a tack coat.

3.12.3 DFT for the total system.

3.12.3.1 For underwater hull paint systems, record a minimum of 30 DFT readings per 1,000 square feet (90m^2). Baseline DFT readings of underwater hull paint system shall be taken after final coat is applied and Quality Assurance spot readings in accordance with 2.c are completed.

3.12.4 Elapsed time between coats.

3.12.5 Ambient and metal surface temperatures, relative humidity, and dew point at a minimum of four-hour intervals during painting process. Information for environment shall be recorded from conditions on-site, in close proximity to the structure.

3.12.6 Name of paint/non-skid, manufacturer, batch number, and date of manufacture and expiration.

3.12.7 Material product data sheets for each proprietary coating used.

3.12.8 Surface conductivity and chloride measurements.

3.12.9 Submit four legible copies of recorded information to NAVSHIPREPFAC upon completion of the Work Item.

3.12.9.1 Submit four legible copies of the manufacturer's warranty documents to NAVSHIPREPFAC when specified in the Job Order.

3.13 Utilize water-based latex fire retardant paints in preference to chlorinated alkyd based fire retardant paints. Such paints are available under DOD-C-24596 or a Naval Sea Systems Command (NAVSEA) approved product (Formula 25A). Accomplish the surface preparation and coating application requirements of 2.b when using water-based paints.

3.14 For commercial underwater hull coating systems including anticorrosive paints and antifouling paints, the manufacturer's primer must be used with his antifouling coating. No substitution is allowed.

3.14.1 Successive coats of anticorrosive paints shall be of a contrasting color.

3.15 Apply stripe coat to weld seams, cutouts, corners, edges, and butts in tanks, bilges, and well deck overheads in accordance with the coating manufacturer's instructions. Stripe coat the edges, weld seams, foot/hand holes (including inaccessible areas, such as back side of piping, under side of I-beams), and other mounting hardware (non-flat surface) on the bulkheads of tanks after the prime coat has dried. The stripe coat shall encompass all edges, as well as at least one-inch border outside each edge. Stripe coating applied shall be neat in appearance, minimizing extra thickness applied to edges, as well as streaks and drops of paint. Stripe coating applies only to 100 percent represervation.

3.15.1 Apply one stripe coat after the primer (or mist coat after inorganic zinc) for MIL-PRF-23236 coatings.

3.15.2 Apply one stripe coat after the primer for MIL-P-24441 coat system and another stripe coat after the intermediate coat, but prior to final coat. For a two-coat system, only one stripe coat is required.

3.15.3 The stripe coat shall encompass all edges as well as at least a one-inch border outside each edge and weld.

(V) or (I)(G) "STRIPE COAT INSPECTION" (See 4.4 for criteria)

3.15.4 Each stripe coat shall be unthinned paint of the specified paint system and shall be a different color from both the paint over which it is being applied and the next coat in the system. First coat inspection shall be accomplished prior to stripe coat application.

3.15.5 DFT readings shall not be taken in areas where stripe coatings have been applied.

3.15.6 Stripe coat for Table 2, Line 11, shall be Sigma Edge Guard (PDS #5455) at 10-12 mils DFT.

3.15.7 Stripe coat for Table 6, Line 5, shall be Sigmaguard BT 7451 gray, 8 to 12 mils DFT, applied following application of prime coat.

3.15.8 Stripe coat for Table 6, Line 6, shall be Dura-Plate UHS, 10 to 12 mils DFT, applied following application of prime coat.

3.16 Sigma Marine Coatings, Table 6, Line 5, and Sherwin-Williams Dura-Plate UHS Coatings, Table 6, Line 6, shall be applied only when the temperature of the blasted substrate is greater than 50 degrees Fahrenheit and a minimum of five degrees Fahrenheit above the dew point. Environmental conditions inside the tank or void shall be monitored every four hours.

(V)(G) "HOLIDAY INSPECTION" (See 4.4 for criteria)

3.17 For Tables 4, 5 and 6, accomplish a visual holiday check on the final tank or void coating system. Any holiday (defect to bare metal) found shall be marked and touched up in accordance with 3.5.

4. NOTES:

4.1 Thicknesses specified in Tables One through 18 are DFT and are minimum requirements, unless otherwise specified.

4.2 Total DFT encountered during removal may exceed specified table thicknesses.

4.3 Total removal of ablative coating is not required in accordance with 631-5.2.3.3 of 2.b. The invoking Work Item will specify the degree of removal.

4.4 The paragraphs referencing this note are considered an (I)(G) if the inspection/test is on a critical surfaces as listed in 3.12. If the inspection/test is not on a critical surface as listed in 3.12, then the paragraph is considered a (V).

4.5 WFT equals DFT plus percent solids by volume (when percent solids by volume is expressed as a decimal, i.e., 60 percent equals 0.60).

STEEL SURFACES TABLE 1	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (KEEL TO BOOTTOP, ~~INCLUDING PROPULSION SHAFT, OUTBOARD BEARING VOIDS)~~ ~~SEE NOTE (35)~~ SERVICE LIFE FOR 2 YEARS OR LESS	1	NEAR WHITE METAL BLAST SSPC-SP-10 --OR-- FOR HYDROBLASTED SURFACES USE INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING STANDARD VERY THOROUGH HYDROBLAST HB2-1/2L SEE NOTES (23)&(34)	ONE COAT F-150, MIL-P-24441 3-4 MILS SEE NOTE (1)	ONE COAT F-151, MIL-P-24441 3-4 MILS SEE NOTE (1)	ONE COAT F-154, MIL-P-24441 3-4 MILS SEE NOTE (1)	2 COATS F-121A, MIL-P-15931 2 MILS/COAT 4 MILS MIN TOTAL MIN DRYING TIME OF 24 HRS SHALL BE ALLOWED BETWEEN LAST COAT & UNDOCKING OF SHIP SEE NOTE (27)	2 COATS F-129A, MIL-P-15931 2 MILS/COAT 4 MILS MIN TOTAL MIN DRYING TIME OF 24 HRS SHALL BE ALLOWED BETWEEN LAST COAT & UNDOCKING OF SHIP SEE NOTE (2)	ONE COAT MIL-PRF-24635 LT GRAY, COLOR NO. 26373 TO BOOTTOPPING & BELOW, 3 MILS ONE COAT COLOR NO. 26173 (FED STD 595) MIL-PRF-24635 OCEAN GRAY ABOVE BOOTTOPPING, 3 MILS
	2	SAME AS LINE ONE	ONE COAT AMER-COAT 83AE, 5 MILS	ONE COAT AMER-COAT 84E, 5 MILS		SAME AS LINE ONE SEE NOTE (27)	SAME AS LINE ONE	SAME AS LINE ONE
	3	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, RED, 5 MILS --OR-- KHA303/KHA062, 5 MILS SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327, GRAY, 5 MILS --OR-- KHA304/KHA062, 5 MILS SEE NOTE (4)		SAME AS LINE ONE SEE NOTE (27)	SAME AS LINE ONE	SAME AS LINE ONE
	4	SAME AS LINE ONE	ONE COAT VALSPAR 65-R-10, 4 MILS	ONE COAT VALSPAR 65-F-15, 4 MILS		SAME AS LINE ONE SEE NOTE (27)	SAME AS LINE ONE	SAME AS LINE ONE
	5	SAME AS LINE ONE	ONE COAT DEVOE BAR-RUST 235, RED, 5 MILS SEE NOTE (3)	ONE COAT DEVOE BAR-RUST 235, GRAY, 5 MILS SEE NOTE (3)		SAME AS LINE ONE SEE NOTE (27)	SAME AS LINE ONE	SAME AS LINE ONE

STEEL SURFACES TABLE 1 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS) 5 TO 10 YEARS SERVICE LIFE	6	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, RED, 5 MILS --OR-- KHA303/KHA062, 5 MILS SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327, GRAY, 5 MILS --OR-- KHA304/KHA062, 5 MILS SEE NOTE (4)		ONE COAT 642 BLACK, ONE COAT 640 RED (MIL-PRF-24647), 5 MILS/COAT SEE NOTES (2)&(6)	2 COATS 642 BLACK (MIL-PRF-24647), 5 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE
	7	SAME AS LINE ONE	ONE COAT DEVOE BAR-RUST 235, RED, 5 MILS -- OR -- DEVRAN 230, 5 MLS SEE NOTE (3)	ONE COAT DEVOE BAR-RUST 235, GRAY, 5 MILS -- OR -- DEVRAN 230, 5 MILS SEE NOTE (3)		1 COAT ABC 3 BLACK 1 COAT ABC 3 RED (MIL-PRF-24647) 5 MILS/COAT SEE NOTES (2)&(6)	2 COATS DEVOE ABC 3 BLACK, (MIL-PRF-24647) 5 MILS/COAT --OR-- COLOR NO.26173 (FED STD 595) DEVOE ABC 3 (MIL-PRF-24647), OCEAN GRAY SEE NOTE (6)	SAME AS LINE ONE
	8	SAME AS LINE ONE	ONE COAT HEMPADUR 4515-5063AC (RED), 5 MILS SEE NOTE (5)	ONE COAT HEMPADUR 4515-114BAC (GREY), 5 MILS SEE NOTE (5)		ONE COAT OLYMPIC 7660-1999AF BLACK (MIL-PRF-24647) -- & -- ONE COAT OLYMPIC 7660-5111AF RED (MIL-PRF-24647), 5 MILS/COAT SEE NOTES (2) & (6)	2 COATS OLYMPIC 7660-1999AF BLACK (MIL-PRF-24647), 5 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE

STEEL SURFACES TABLE 1 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (STRUTS, RUDDERS, & OTHER CAVITATION PRONE AREAS)	9	SAME AS LINE ONE	ONE COAT F-150, MIL-P-24441 3-4 MILS	ONE COAT F-150, MIL-P-24441 -- & -- ONE COAT F-154, MIL-P-24441 3-4 MILS/COAT SEE NOTE (1)	4 COATS 3M CO. NO. EC-2216, ONE COAT, 6 MILS WFT/COAT (4.2 MILS DFT/COAT) 3 COATS, 8 MILS WFT/COAT (5.6 MILS DFT/COAT) SEE NOTE (1)	ANTIFOULING PAINT SAME AS SURROUNDING HULL		
	10	SAME AS LINE ONE	ONE COAT DEVOE BAR-RUST 235, 5 MILS -- OR -- DEVRAN 230, 5 MILS SEE NOTE (3)	ONE COAT DEVOE BAR-RUST 235, 5 MILS -- OR -- DEVRAN 230, 5 MILS SEE NOTE (3)	SAME AS LINE 9	SAME AS LINE 7		
	11	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, 5 MILS SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327 5 MILS -- OR -- KHA304/KHA062, 5 MILS SEE NOTE (4)	SAME AS LINE 9	SAME AS LINE 6		
	12	SAME AS LINE ONE	ONE COAT HAMPADUR 4515-5063AC(RED), 3-4 MILS SEE NOTE (5)	SAME AS LINE 8	SAME AS LINE 9	SAME AS LINE 8		

STEEL SURFACES TABLE 2	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
LOCATION: EXTERIOR SURFACES ABOVE BOOTTOP WITH EXCEPTION OF FLIGHT DECK & VERTICAL REPLENISHMENT, AND WELL DECK OVERHEAD AREAS SEE NOTE (2)	1	NEAR WHITE METAL BLAST SSPC-SP-10 --OR-- FOR HYDROBLASTED SURFACES USE INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING STANDARD VERY THROUGH HYDROBLAST HB2-1/2L SEE NOTES (23)&(34)	ONE COAT F-150, MIL-P-24441 2-4 MILS -- OR -- ONE COAT MIL-PRF-24647 ANTICORROSIVE 5 MILS SEE NOTE (1)	ONE COAT F-151, MIL-P-24441 2-4 MILS -- OR -- ONE COAT MIL-PRF-24647 ANTICORROSIVE 5 MILS SEE NOTE (1)	ONE COAT F-154, MIL-P-24441 2-4 MILS NOTE: THIRD COAT NOT REQUIRED WHEN USING MIL-PRF-24647 ANTICORROSIVE SEE NOTE (1)	ONE COAT DECK GRAY NO. 26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL SEE NOTE (8)	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL --OR-- MIL-E-24763, TYPE-II, CLASS-2, 3 MILS TOTAL	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL --OR-- MIL-E-24763, TYPE-II, CLASS-2, 3 MILS TOTAL PAINT DESIGNATIONS & MARKINGS MIL-PRF-24635 (LOW SOALR ABSORPTION ONLY); IN LIEU OF WHITE USE LT GRAY, COLOR NO. 26373. IN PLACE OF BLACK USE OCEAN GRAY, COLOR NO 26173
	2	SAME AS LINE ONE	ONE COAT INORGANIC ZINC SILICATE, DOD-P-24648 2-3 MILS -- OR -- CHAP 631, PARA 631-8.23.2.1	ONE MIST COAT F-150, MIL-P-24441 1-2 MILS WFT --OR-- ONE COAT ANTICORROSIVE, MIL-PRF-24647 1-2 MILS WFT SEE NOTE (1)	ONE COAT F-150 OR F-151, MIL-P-24441, 2-4 MILS WHEN FIRST COAT IS STILL TACKY --OR-- ONE COAT ANTICORROSIVE, MIL-PRF-24647 5 MILS SEE NOTE (1)	SAME AS LINE ONE APPLY WHILE EPOXY IS TACKY IN FINAL STAGE	SAME AS LINE ONE APPLY WHILE EPOXY IS TACKY IN FINAL STAGE	SAME AS LINE ONE APPLY WHILE EPOXY IS TACKY IN FINAL STAGE
HANGAR DECKS, FLIGHT DECKS, & VERTICAL REPLENISHMENT DECK AREAS	3	NEAR WHITE METAL BLAST SSPC-SP-10 --OR-- FOR HYDROBLASTED SURFACES USE JOINT DURFACE PREPARATION STANDARD, NACE NO. S/SSPC-SP-12 TO CONDITION WJ-2 AND SC-1 IN CONJUNCTION WITH INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING STANDARD VERY THROUGH HYDROBLAST HB 2-1/2L SEE NOTES (23)&(34)	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)			ONE COAT DARK GRAY, MIL-PRF-24667, TYPE I, COMP G		

STEEL SURFACES TABLE 2 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
LOCATION: LANDING & CATAPULT AREAS (CV'S & CVN'S ONLY)	4	SAME AS LINE 3	SAME AS LINE 3			ONE COAT DARK GRAY, MIL-PRF-24667, TYPE I OR II, COMP L SEE NOTE (19)		
WALK AREAS (ALL DECK AREAS OTHER THAN HANGAR, FLIGHT, AND VERTREP)	5	SAME AS LINE 3	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 OR MIL-PRF-24483, TYPE I SEE NOTE (7)			ONE COAT MIL-PRF-24667, TYPE I, II, OR III, COMP G -- OR -- ONE COAT MIL-PRF-24667, TYPE IV -- OR -- ONE COAT MIL-PRF-24483, TYPE I SEE NOTE (19)		
EXTERIOR STEEL SURFACES	6	HAND TOOL CLEAN SSPC-SP-2 ATTACHMENT A, PARA 11	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	7	POWER TOOL CLEAN SSPC-SP-11 ATTACHMENT A, PARA 11	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE

STEEL SURFACES TABLE 2 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
LOCATION: EQUIPMENT FREE WELL DECK OVERHEADS - NOT EXPOSED TO LCAC EXHAUST SEE NOTE (30)	8	NEAR WHITE METAL BLAST, SSPC-SP-10 SEE NOTES (31)	ONE COAT MIL-PRF-23236 3-5 MILS DFT SEE NOTES (1)&(32)		TWO COATS MIL-PRF-23236 3-5 MILS DFT PER COAT SEE NOTES (1)&(32)			
LOCATION: WELL DECK OVERHEADS WITH VENTILATION DUCTING, LIGHTING, CABLING, AND MONORAIL SERVICES NOT EXPOSED TO LCAC EXHAUST SEE NOTE (30)	9	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 SEE NOTES (31)		ONE COAT F-151, MIL-P-24441 -- & -- ONE COAT F-154, MIL-P-24441 3-4 MILS PER COAT SEE NOTE (1)	TWO COATS MIL-PRF-23236 3-5 MILS DFT PER COAT SEE NOTES (1)&(32)			
LOCATION: WELL DECK OVERHEADS - EXPOSED TO LCAC EXHAUST SEE NOTE (30)	10	NEAR WHITE METAL BLAST, SSPC-SP-10 TO ACHIEVE A 2-3 MIL PROFILE SEE NOTES (31)&(35)	ONE COAT SOLVENT BORNE INORGANIC ZINC PRIMER, AMERON DIMETCOTE 9HS, 3-4 MILS DFT MIN DRY TIME 24 HOURS PRIOR TO MIST COAT	ONE MIST COAT, MIL-PRF-23236 AMERON BAR RUST 235, AT 1-2 MILS DFT	ONE COAT MIL-PRF-23236 AMERON BAR RUST 235, AT 3-5 MILS			
LOCATION: WELL DECK OVERHEADS,, BOTH EXPOSED AND NON-EXPOSED TO LCAC EXHAUST SEE NOTE (30)	11	NEAR WHITE METAL BLAST, SSPC-SP-10	ONE COAT YELLOW SIGMA COATINGS EDGEGUARD PRIMER (PDS NO.5454), 5-6 MILS DFT SEE NOTE (33)	ONE COAT OFF-WHITE SIGMA COATINGS EDGEGUARD TOPCOAT (PDS NO.5455), 10-12 MILS DFT SEE NOTE (33)				
LOCATION: VARIOUS	12	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 ATTACHMENT A PARA 11						

STEEL SURFACES TABLE 3	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
LOCATION: INTERIOR COMPARTMENTS COLORS TO BE SPECIFIED BY TYCOM OR SHIP'S COMMANDING OFFICER PER CHAP 631, PARA 631-8.23.4	1	HAND TOOL CLEAN, SSPC-SP-2 ATTACHMENT A, PARA 11 SEE NOTES (17)&(28)	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 3 MILS DFT -- OR -- ONE COAT F-150, MIL-P-24441, 2-4 MILS DFT APPLY TOPCOAT WHILE F-150 IS STILL TACKY. IF F-150 IS HARD, USE A TACK COAT PRIOR TO TOPCOAT. --OR-- MIL-PRF-23236, 3-5 MILS DFT SEE NOTE (1)	BHDS, OVHDS, ONE COAT NO. 37038 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL DECKS ONE COAT NO. 27038 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL	2 COATS DOD-C-24596, WATER-BASED INTERIOR LATEX, 5 MILS MAX DFT -- OR -- 2 COATS NAVY FORMULA 25A, WATER-BASED FIRE RETARDANT COATING, 5 MILS MAX DFT SEE NOTE (9)	ONE COAT NO. 26008 (FED STD 595) MIL-PRF-24635, 3 MILS TOTAL (TO DECKS NOT RECEIVING COVERING)	HULL, VENTILATION & PIPING INSULATION ATTACHMENT A, PARA 13 --&-- 2 COATS SAME AS BHDS & OVHDS	FOR COMP'T PIPING VENTILATION SEE NOTE (18)
	2	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	2 COATS DOD-E-24607, 3 MILS TOTAL ATTACHMENT A, PARA 9	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
INTERIOR COMPARTMENTS (OVERCOAT)	3	HAND TOOL CLEAN, SSPC-SP-2 SEE NOTE (28)	SAME AS LINE ONE FOR BARE METAL AREAS	SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE EXCEPT ONE COAT		SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE EXCEPT ONE COAT
WET SPACES (WASH ROOMS, WATER CLOSETS, SHOWER STALLS, GALLEYS, SCULLERIES, & STOREROOMS WHERE HEAVY CONDENSATION IS COMMON)	4	HAND TOOL CLEAN, SSPC-SP-2 ATTACHMENT A, PARA 11	ONE COAT F-150, MIL-P-24441, 2-4 MILS APPLY TOPCOAT WHILE F-150 IS STILL TACKY. IF F-150 IS HARD, USE A TACK COAT PRIOR TO TOPCOAT. SEE NOTE (1)		2 COATS F-152, MIL-P-24441, 2-4 MILS/COAT SEE NOTE (1)	2 COATS F-151, MIL-P-24441, 4-8 MILS TOTAL (TO DECKS NOT RECEIVING COVERING) SEE NOTE (1)	SAME AS LINE ONE	SAME AS LINE ONE
	5	SAME AS LINE 4	MIL-PRF-23236, CLASS ONE				SAME AS LINE ONE	SAME AS LINE ONE

STEEL SURFACES TABLE 3 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
LOCATION: FIRE ZONE BULKHEAD	6	SAME AS LINE ONE	SAME AS LINE ONE		2 COATS THERMAL INSULATING (INTUMESCENT) PAINT, MIL-C-46081, 5 MILS/COAT			
INTERIOR STEEL SURFACES	7	NEAR WHITE METAL BLAST CLEAN, SSPC-SP-10	ONE COAT F-150, MIL-P-24441, 2-4 MILS	ONE COAT F-151, MIL-P-24441, 2-4 MILS	ONE OR MORE COATS F-156 OR F-152, MIL-P-24441, 2-4 MILS	SAME AS COLUMN D/BULKHEAD --OR-- NOT APPLICABLE (WHERE DECK PLATES EXIST)	SAME AS COLUMN D/BULKHEAD	SEE NOTE (18)
INTERIOR COMPARTMENTS (OVERCOAT) COLORS TO BE SPECIFIED BY TYCOM OR SHIP'S COMMANDING OFFICER PER CHAP 631, PARA 631-8.23.4	8	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 ATTACHMENT A, PARA 11 SEE NOTES (17)&(28)	2 COATS F-84, TT-P-645, ALKID ZINC MOLYBDATE, 3 MILS DFT --OR-- ONE COAT F-150, MIL-P-24441, 2-4 MILS DFT APPLY TOPCOAT WHILE F-150 IS STILL TACKY. IF F-150 IS HARD, USE A TACK COAT PRIOR TO TOPCOAT SEE NOTE (1)	BHDS, OVHDS, ONE COAT NO.37038 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL	2 COATS DOD-C-24596, WATER-BASED INTERIOR LATEX, 5 MILS MAX DFT --OR-- 2 COATS NAVY FORMULA 25A, WATER-BASED FIRE RETARDANT COATING, 5 MILS MAX DFT SEE NOTE (9)	ONE COAT NO.26008 (FED STD 595) MIL-PRF-24635, 3 MILS TOTAL (TO DECKS NOT RECEIVING COVERING)	HULL, VENTILATION & PIPING INSULATION ATTACHMENT A, PARA 13 --&-- TWO COATS SAME AS BHDS & OVHDS	FOR COMP'T PIPING VENTILATION SEE NOTE (18)
	9	SAME AS LINE 8	SAME AS LINE 8	SAME AS LINE ONE	2 COATS DOD-E-24607, 3 MILS TOTAL ATTACHMENT A, PARA 9	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
INTERIOR COMPARTMENTS (OVERCOAT)	10	POWER TOOL CLEAN, SSPC-SP-3	SAME AS LINE ONE FOR BARE METAL AREAS	SAME AS LINE ONE EXCEPT ONE COAT	SAME AS LINE ONE EXCEPT ONE COAT			
WET SPACES (WASH ROOMS, WATER CLOSETS, SHOWER STALLS, GALLEYS, SCULLERIES, & STOREROOMS WHERE HEAVY CONDENSATION IS COMMON)	11	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 ATTACHMENT A, PARA 11 SEE NOTE (28)	ONE COAT F-150, MIL-P-24441, 2-4 MILS APPLY TOPCOAT WHILE F-150 IS STILL TACKY. If F-150 IS HARD, USE A TACK CAOT PRIOR TO TOPCOAT. SEE NOTE (1)		2 COATS F-152, MIL-P-24441, 2-4 MILS/COAT SEE NOTE (1)	2 COATS F-151, MIL-P-24441, 4-8 MILS TOTAL (TO DECKS NOT RECEIVING COVERING) SEE NOTE (1)	SAME AS LINE ONE	SAME AS LINE ONE

STEEL SURFACES TABLE 3 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C WELDING BAYS & LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
WET SPACES (WASH ROOMS,	12	SAME AS LINE 11	MIL-PRF-23236, CLASS ONE				SAME AS LINE ONE	SAME AS LINE ONE
WATER CLOSETS, SHOWER STALLS, GALLEYS, SCULLERIES, & STOREROOMS WHERE HEAVY CONDENSATION IS COMMON)	13	POWER TOOL CLEANING TO BARE METAL, SSPC-SP-11	ONE COAT EURONAVY EC301, 4-6 MILS WFT			ONE STRIPE COAT EURONAVY EC301, 4-6 MILS WFT AND ONE FINAL COAT EURONAVY EC301, 4-6 MILS WFT TOTAL SYSTEM 12 MILS MAX		
FIRE ZONE BULKHEAD	14	SAME AS LINE 11	SAME AS LINE ONE		2 COATS THERMAL INSULATING (INTUMESCENT) PAINT, MIL-C-46081, 5 MILS/COAT			
INTERIOR DECK SURFACES	15	SAME AS LINE 11	SAME AS LINE 11					

STEEL SURFACES TABLE 4	LINE	A SURFACE PREPARATION	B	C	D	E	F	G TOTAL
LOCATION: POTABLE WATER TANKS 3 COATS MIN WILL BE REQUIRED	1	NEAR WHITE METAL BLAST CLEANING, SSPC-SP-10 SEE NOTES (23)&(26)	ONE COAT DEVRAN 207, PALE GRAY, ONE MIL MIN, 2 MILS MAX	ONE COAT DEVRAN 207, PALE YELLOW, ONE MIL MIN, 2 MILS MAX EACH COAT	ONE OR MORE COATS DEVRAN 207, PALE BLUE, ONE MIL MIN, 2 MILS MAX			TOTAL SYSTEM (B + C + D) 6 MILS MIN, 8 MILS MAX ATTACHMENT A, PARA 8
	2	SAME AS LINE ONE	ONE COAT INTERNATIONAL 5747/5748,GREEN, 4 MILS MAX EACH COAT	ONE COAT INTERNATIONAL 5753/5754, WHITE, 4 MILS MAX EACH COAT	ONE COAT INTERNATIONAL 5753/5754, WHITE, 4 MILS MAX EACH COAT			TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX ATTACHMENT A, PARA 8
	3	SAME AS LINE ONE	ONE COAT TANKGUARD NO. 1, 2-4 MILS	ONE COAT TANKGUARD NO. 3, 2-4 MILS	ONE COAT TANKGUARD NO.3, 2-4 MILS			TOTAL SYSTEM 8 MILS MIN, 10 MILS MAX ATTACHMENT A, PARA 8
	4	SAME AS LINE ONE	ONE COAT F-150, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE COAT F-156, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE OR MORE COATS F-152, MIL-P-24441, 2-4 MILS SEE NOTE (1)			TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX ATTACHMENT A, PARA 8
	5	SAME AS LINE ONE	ONE COAT VALSPAR SOVAPON 264-W-12 4 MILS MAX	ONE COAT VALSPAR SOVAPON 264-F-25, 4 MILS MAX	ONE COAT VALSPAR SOVAPON 264-F-25, 4 MILS			TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX ATTACHMENT A, PARA 8

STEEL SURFACES TABLE 5	LINE	A SURFACE PREPARATION	B	C	D	E	F	G TOTAL
LOCATION: FEEDWATER TANKS ONLY	1	NEAR WHITE METAL BLAST CLEANING, SSPC-SP-10 SEE NOTES (23)&(26)	ONE COAT F-150, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE COAT F-151, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE OR MORE COATS F-152, MIL-P-24441, 2-4 MILS SEE NOTE (1)			8 MILS MIN, 12 MILS MAX
	2	SAME AS LINE ONE	CHAP 631, TABLE 631-8-5					

STEEL SURFACES TABLE 6	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F	G TOTAL
LOCATION: JP-5 TANKS, MOGAS TANKS, FUEL OIL SERVICE TANKS, DIESEL SERVICE TANKS, CONTAMINATED FUEL TANKS, FUEL COMP TANKS, FUEL STORAGE TANKS	1	NEAR WHITE METAL BLAST, SSPC-SP-10 SEE NOTES (22)(23)(26)&(34)	ONE COAT F-150, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE COAT F-151, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE OR MORE COATS F-152, MIL-P-24441, 2-4 MILS SEE NOTE (1)			TOTAL SYSTEM 8 MILS MIN, 12 MILS MAX
	2	SAME AS LINE ONE	MIL-PRF-23236 SEE NOTE (10)	MIL-PRF-23236 SEE NOTE (10)				EACH COAT & TOTAL SYSTEM - APPLY IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED DATA SHEETS. SEE NOTE (1)
CHT/MSD TANKS	3	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	ONE OR MORE COATS F-156, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE COAT F-152, MIL-P-24441, 2-4 MILS SEE NOTE (1)		TOTAL SYSTEM 10 MILS MIN, 20 MILS MAX
AFFF TANKS	4	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE			TOTAL SYSTEM 8 MILS MIN. 12 MILS MAX
BALLAST TANKS, FLOODABLE VOIDS (SUBSTRATE TEMP 50 DEGREES FAHRENHEIT AND ABOVE)	5	SAME AS LINE ONE	ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 7404, GREEN, 4-5 MILS SEE NOTE (33)	ONE COAT SIGMA MARINE COATINGS SIGMAGUARD BT 7451, AQUA, 10-12 MILS SEE NOTE (33)				TOTAL SYSTEM 14 MILS MIN, 17 MILS MAX AREAS OF STRIPE COAT (CORNERS, EDGES & WELDS) 22 MILS MIN, 29 MILS MAX
	6	SAME AS LINE ONE	ONE COAT SHERWIN-WILLIAMS DURA-PLATE UHS PRIMER, 4-8 MILS SEE NOTE (33)	ONE COAT SHERWIN-WILLIAMS DURA-PLATE UHS, 10-12 MILS SEE NOTE (33)				TOTAL SYSTEM 14 MILS MIN, 29 MILS MAX (22 MILS MIN, 29 MILS MAX ON CORNERS, EDGES AND WELDS)

STEEL SURFACES TABLE 6 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F	G TOTAL
BALLAST TANKS, FLOODABLE VOIDS	7	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE			SAME AS LINE ONE
(USE ONLY WHEN SUBSTRATE TEMP CANNOT BE MAINTAINED ABOVE 50 DEGREES FAHRENHEIT)	8	SAME SA LINE ONE	MIL-PRF-23236, GRADE A	MIL-PRF-23236, GRADE A				SAME AS LINE 2

STEEL SURFACES TABLE 7	LINE	A SURFACE PREPARATION	B PRIMER	C PRIMER	D	E	F	G TOTAL
LOCATION: CHAIN LOCKERS	1	NEAR WHITE METAL BLAST, SSPC-SP-10 SEE NOTE (34)	ONE COAT F-150, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE COAT F-151, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE OR MORE COATS F-153 OR F-152, MIL-P-24441, 2-4 MILS SEE NOTE (1)			TOTAL SYSTEM 8-12 MILS
	2	SAME AS LINE ONE	MIL-PRF-23236 SEE NOTE (10)	MIL-PRF-23236 SEE NOTE (10)				EACH COAT & TOTAL SYSTEM - APPLY IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED DATA SHEETS. SEE NOTE (11)
	3	SAME AS LINE ONE	ONE COAT INORGANIC ZINC PRIMER, 3-5 MILS, DOD-P-24648 -- OR -- CHAP 631, PARA 631-8.23.2.1	ONE MIST COAT F-150, MIL-P-24441 1-2 MILS WFT SEE NOTE (1)	ONE COAT F-151, MIL-P-24441, 2-4 MILS SEE NOTE (1)		ONE COAT F-152 OR F-153, MIL-P-24441, 2-4 MILS SEE NOTE (1)	TOTAL SYSTEM 10-16 MILS
NON-FLOODABLE VOIDS	4	SAME AS LINE ONE	ONE COAT F-150, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE OR MORE COATS F-152, MIL-P-24441, 2-4 MILS SEE NOTE (1)				TOTAL SYSTEM 6-8 MILS
	5	SAME LINE ONE	MIL-PRF-23236 SEE NOTE (10)	MIL-PRF-23236 SEE NOTE (10)				EACH COAT & TOTAL SYSTEM - APPLY IN ACCORDANCE WITH MANUFACTURE'S PUBLISHED DATA SHEETS. SEE NOTE (11)

STEEL SURFACES TABLE 7 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C PRIMER	D	E	F	G TOTAL
LOCATION: NON-FLOODABLE VOIDS	6	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 ATTACHMENT A, PARA 11	2 COATS F-84, ALKYD ZINC MOLYBDATE, TT-P-645, 3 MILS TOTAL	ONE COAT NO. 27875 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL				TOTAL SYSTEM 4.5-6 MILS
MACHINERY SPACES & BILGES	7	POWER TOOL CLEAN, SSPC-SP-3 ATTACHMENT A, PARA 11	ONE COAT F-150, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE COAT F-151, MIL-P-24441, 2-4 MILS SEE NOTE (1)	BILGE AREA: ONE OR MORE COATS F-156, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ABOVE BILGE AREA: 2 COATS F-124, DOD-E-24607, 2-4 MILS		TOTAL SYSTEM 8-12 MILS
	8	SAME AS LINE 7	MIL-PRF-23236 SEE NOTE (10)	MIL-PRF-23236 SEE NOTE (10)		SAME AS LINE 7		EACH COAT & TOTAL SYSTEM - APPLY IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED DATA SHEETS SEE NOTE (11)
	9	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 ATTACHMENT A, PARA 11	ONE COAT F-150, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE COAT F-151, MIL-P-24441, 2-4 MILS SEE NOTE (1)	BILGE AREA ONE OR MORE COATS F-156, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ABOVE BILGE AREA 2 COATS F-124, DOD-E-24607, 2-4 MILS		TOTAL SYSTEM 8-12 MILS
	10	SAME AS LINE 9	MIL-PRF-23236 SEE NOTE (10)	MIL-PRF-23236 SEE NOTE (10)		SAME AS LINE 9		EACH COAT & TOTAL SYSTEM - APPLY IN ACCORDANCE WITH MANUFACTURE'S PUBLISHED DATA SHEETS SEE NOTE (11)
	11	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	ONE COAT EURONAVY ES301, 4-6 MILS WFT	STRIPE COAT EURONAVY ES301, 4-6 MILS WFT	FINAL COAT EURONAVY ES301, 4-6 MILS WFT	SAME AS LINE 9		TOTAL SYSTEM 8-12 MILS DFT

ALUMINUM SURFACES TABLE 8	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (KEEL TO BOOTTOP, INCLUDING PROPULSION SHAFT OUTBOARD BEARING VOIDS) SEE NOTE (35)	1	NEAR WHITE METAL BLAST USING GARNET OR ALUMINUM OXIDE, MIL-A-21380 OR MIL-A-22262 --OR-- FOR HYDROBLASTED SURFACES USING INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING STANDARD VERY THROUGH HYDROBLAST HB2-1/2L SEE NOTES (23)&(34)	ONE COAT INTERNATIONAL FPL 274/FPA 327, RED, 5 MILS, WITHIN 4 HRS AFTER SURFACE PREPARATION SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327, GRAY, 5 MILS SEE NOTE (4)	ONE COAT INTERNATIONAL BXA 386/BXA 390/BXA 391, DARK GRAY, 3-5 MILS	ONE COAT INTERNATIONAL BXA 816/BXA 821/BXA 822, GRAY, 6 MILS TOTAL	ONE COAT INTERNATIONAL BXA/816/BXA 821/BXA 822, GRAY, 6 MILS TOTAL	ONE COAT INTERNATIONAL BXA 819/BXA 821/ BXA 822, BLACK
	2	TOUCH-UP OR REMOVE PAINT SYSTEM TO SOUND PRIMER BY LIGHT ABRASIVE BLASTING WITH BLACK WALNUT SHELLS CONFORMING TO A-A-1722, TYPE 2 -- & -- SPOT CLEAN, CHAP 631, PARA 631-5.2.4.3 SEE NOTES (21)&(34)	FOR TOUCH-UP, OR FOLLOWING PAINT REMOVAL TO SOUND PRIMER, USE APPROPRIATE PAINT SYSTEM FROM LINE ONE					SAME AS LINE ONE
UNDERWATER HULL (KEEL TO BOTTOP, INCLUDING SHAFT OUTBOARD BEARING VOIDS) SEE NOTE (35) APPLIES TO PHM'S ONLY	3	ABRASIVE BLASTING WITH ALUMINUM OXIDE, MIL-A-21380, TYPE ONE, OR BLACK WALNUT CONFORMING TO A-A-1722, TYPE 2, TO SOUND PRIMER SEE NOTES (21)&(34)	FOR TOUCH-UP OR FOLLOWING PAINT REMOVAL TO SOUND PRIMER, USE APPROPRIATE PAINT SYSTEM FROM LINE ONE					SAME AS LINE ONE
UNDERWATER HULL (STRUTS, RUDDERS & OTHER CAVITATION PRONE AREAS)	4	SAME AS LINE ONE	ONE COAT MIL-P-24441, FORMULA 150, 3-4 MILS DFT, WITHIN 4 HOURS AFTER SURFACE PREPARATION SEE NOTE (1)	2 COATS INTERNATIONAL PGA 750/751, 25 MILS EACH FOR A TOTAL OF 50 MILS DFT		ANTIFOULING PAINT SAME AS SURROUNDING HULL		

ALUMINUM SURFACES TABLE 8 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL (STRUTS, RUDDERS, & OTHER CAVITATION PRONE AREAS)	5	SAME AS LINE ONE	ONE COAT DEVOE BAR-RUST 235, RED, 3-4 MILS, WITHIN 4 HOURS AFTER SURFACE PREPARATION SEE NOTE (3)	SAME AS LINE 4		SAME AS LINE 4		
	6	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, 3-4 MILS WITHIN 4 HOURS AFTER SURFACE PREPARATION SEE NOTE (4)	SAME AS LINE 4		SAME AS LINE 4		

ALUMINUM SURFACES TABLE 9	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZONTAL SURFACES DECKS & FITTINGS	F MASTS & DECKS EXPOSED TO GASES	G VERTICAL SURFACES
LOCATION: EXTERIOR SURFACES ABOVE BOOTTOP	1	ABRASIVE BLASTING, USE GARNET, ALUMINUM OXIDE OR WALNUT SHELLS -- & -- SPOT CLEANING, CHAP 631, PARA 631-5.2.4.3 --OR-- FOR HYDROBLASTED SURFACES USING INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING STANDARD VERY THROUGH HYDROBLAST HB2-1/2L SEE NOTES (21)(22)(23)&(34)	ONE COAT F-150, MIL-P-24441, 2-4 MILS, WITHIN 4 HRS AFTER SURFACE PREPARATION SEE NOTE (1)	ONE COAT F-151, MIL-P-24441, 2-4 MILS SEE NOTE (1)		ONE COAT DECK GRAY NO. 26008 (FED STD 595), MIL-PRF-24635(LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL SEE NOTE (8)	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL --OR-- MIL-E-24763, TYPE II,CLASS-2, 3 MILS TOTAL	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL --OR-- MIL-E-24763, TYPE-II, CLASS-2 3 MILS TOTAL PAINT DESIGNATIONS & MARKINGS MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY); IN LIEU OF WHITE USE LT GRAY, COLOR NO. 26373; IN PLACE OF BLACK, USE OCEAN GRAY, COLOR NO. 26173
	2	SAME AS LINE ONE		2 COATS F-84, TT-P-645, ALKYD ZINC MOLYBDATE, 3 MILS TOTAL		SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
WALK AREAS ALL DICK AREAS OTHER THAN HANGAR, FLIGHT & VERTICAL REPLENISHMENT DECK AREAS	3	NEAR WHITE BLAST, SSPC-SP-10, USING GARNET, ALUMINUM OXIDE OR WALNUT SHELLS --OR-- FOR HYDROBLASTED SURFACES, USE JOINT SURFACE PREPARATION STANDARD, NACE NO. 5/SSPC-SP-12 TO CONDITION WJ-1 AND SC-1 IN CONJUNCTION WITH INTERNATIONAL COURTAULDS MARINE PAINT COMPANY HYDROBLASTING STANDARD VERY THROUGH HYDROBLAST HB2-1/2L SEE NOTES (21)(22)(23)&(34)	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 SEE NOTE (7)			ONE COAT MIL-PRF-24667, TYPE I, II, OR III, COMP G -- OR -- ONE COAT MIL-PRF-24667, TYPE IV SEE NOTE (19)		

ALUMINUM SURFACES TABLE 9 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F	G
HANGAR DECKS, FLIGHT DECKS & VERTICAL REPLENISHMENT DECK AREAS	4	SAME AS LINE 3	SAME AS LINE 3			ONE COAT DARK GRAY, MIL-PRF-24667, TYPE I, COMP G		
INTERIOR VERTICAL SURFACES	5	POWER TOOL CLEAN, SSPC-SP-11	ONE COAT F-150, MIL-P-24441, 2-4 MILS APPLY TOPCOAT WHILE F-150 IS STILL TACKY. IF F-150 IS HARD, USE A TACKY COAT PRIOR TO TOPCOAT SEE NOTE (1)	SAME AS LINE ONE	2 COATS DOD-E-24607, 2-4 MILS -- OR -- 2 COATS DOD-C-24596, WATER BASED INTERIOR LATEX, 5 MILS MAX DFT -- OR -- 2 COATS NAVY FORMULA 25A, WATER BASED FIRE RETARDANT COATING, 5 MILS MAX DFT			
VARIOUS	6	POWER TOOL CLEAN TO BARE METAL SSPC-SP-11						

ALUMINUM SURFACES TABLE 10	LINE	A SURFACE PREPARATION	B PRIMER	C LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
LOCATION: INTERIOR COMPARTMENTS COLORS TO BE SPECIFIED BY TYCOM OR SHIP'S COMMANDING OFFICER PER CHAP 631, PARA 631-8.23.4	1	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11, USING STAINLESS STEEL WIRE BRUSHED, STAINLESS STEEL PADS, OR ABRASIVE SANDING DISCS (ANSI/BHMA B74.18) SEE NOTE (28)	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 3 MILS DFT	BHDS, OVHDS & DECKS, ONE COAT NO. 37038 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL	2 COATS DOD-C-24596, WATER-BASED INTERIOR LATEX, 5 MILS MAX DFT -- OR -- 2 COATS NAVY FORMULA 25A, WATER-BASED FIRE RETARDANT COATING, 5 MILS MAX DFT SEE NOTE (9)	ONE COAT NO. 27038 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL (TO DECKS NOT RECEIVING DECK COVERING)	HULL, VENTILATION & PIPING INSULATION ATTACHMENT A, PARA 13 --&-- 2 COATS SAME AS BHDS & OVHDS	FOR COMP'T PIPING & VENTILATION SEE NOTE (18)
	2	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE ATTACHMENT A, PARA 9	2 COATS DOD-E-24607, 3 MILS TOTAL	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
	3	SAME AS LINE ONE	ONE COAT F-150, MIL-P-24441, 2-4 MILS APPLY TOPCOAT WHILE FORMULA 150 IS STILL TACKY. IF 150 IS HARD, USE A TACK COAT PRIOR TO TOPCOAT. SEE NOTE (1)	SAME AS LINE ONE	SAME AS LINE 2	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE
POTABLE WATER TANKS	4	BLAST TO ACHIEVE 1-1/2 TO 2 MILS ANCHOR PATTERN, USING GARNET OR ALUMINUM OXIDE	TABLE 4, LINES ONE THROUGH 5					

ALUMINUM SURFACES TABLE 10 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
LOCATION: WET SPACES (WASH ROOMS, WATER CLOSETS, SHOWER STALLS, GALLEYS, SCULLERIES, & STOREROOMS WHERE HEAVY CONDENSATION IS COMMON)	5	HAND TOOL CLEAN, SSPC-SP-2 ATTACHMENT A, PARA 11 SEE NOTE (28)	ONE COAT F-150, MIL-P-24441, 2-4 MILS APPLY TOPCOAT WHILE F-150 IS STILL TACKY. IF F-150 IS HARD, USE TACK COAT PRIOR TO TOPCOAT. SEE NOTE (1)		2 COATS F-152, MIL-P-24441, 2-4 MILS SEE NOTE (1)	2 COATS F-151, MIL-P-24441, 4-8 MILS TOTAL (TO DECKS NOT RECEIVING COVERING) SEE NOTE (1)	SAME AS LINE ONE	SAME AS LINE ONE
	6	SAME AS LINE 5	MIL-PRF-23236 SEE NOTE (10)				SAME AS LINE ONE	SAME AS LINE ONE
FIRE ZONE BULKHEAD	7	SAME AS LINE ONE	ONE COAT F-150, MIL-P-24441, 2-4 MILS APPLY TOPCOAT WHILE F-150 IS STILL TACKY. IF F-150 IS HARD, USE A TACK COAT PRIOR TO TOPCOAT. SEE NOTE (1)		2 COATS THERMAL INSULATING (INTUMESCENT) PAINT, MIL-C-46081, 5 MILS/COAT			
WET SPACES (WASH ROOMS, WATER CLOSETS, SHOWER STALLS, GALLEYS, SCULLERIES, & STOREROOMS WHERE HEAVY CONDENSATION IS COMMON)	8	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11 ATTACHMENT A, PARA 11 SEE NOTE (28)	ONE COAT F-150, MIL-P-24441, 2-4 MILS APPLY TOPCOAT WHILE F-150 IS STILL TACKY. IF F-150 IS HARD, USE A TACK COAT PRIOR TO TOPCOAT. SEE NOTE (1)		2 COATS F-152, MIL-P-24441, 2-4 MILS SEE NOTE (1)	2 COATS F-151, MIL-P-24441, 4-8 MILS TOTAL (TO DECKS NOT RECEIVING COVERING) SEE NOTE (1)	SAME AS LINE ONE	SAME AS LINE ONE
	9	SAME AS LINE 8	MIL-PRF-23236 SEE NOTE (10)				SAME AS LINE ONE	SAME AS LINE ONE
	10	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	ONE COAT EURONAVY ES301, 4-6 MILS WFT			EURONAVY ES301, ONE STRIPE COAT, 4-6 MILS WFT AND ONE FINAL COAT 4-6 MILS WFT TOTAL SYSTEM 12 MILS MAX		

ALUMINUM SURFACES TABLE 10 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C LIGHT TRAPS	D BULKHEADS & OVERHEADS	E DECKS	F THERMAL INSULATION	G MARKINGS
MACHINERY SPACES AND BILGES	11	POWER TOOL CLEAN TO BARE METAL, SSPC-SP-11	ONE COAT EURONAVY ES301, 4-6 MILS WFT	STRIPE COAT EURONAVY ES301, 4-6 MILS WFT	FINAL COAT EURONAVY ES301, 4-6 MILS WFT	ABOVE BILGE AREA; 2 COATS F-124, DOD-E-24607, 2-4 MILS		TOTAL SYSTEM 8-12 MILS DFT

WOOD SURFACES TABLE 11	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G HULL DRAFT INDENT. MARKS
LOCATION: UNDERWATER HULL	1	BRUSHOFF BLAST TO REMOVE LOOSE & DETERIORATED COATINGS -- OR -- HIGH PRESSURE WASH TO REMOVE MARINE GROWTH & LOOSE PAINT SEE NOTE (20)	KEEL TO 6 INCHES ABOVE UPPER BOOTTOP LIMIT ONE COAT F-150, MILS-P-24441, 2-3 MILS SEE NOTE (1)			2 COATS F-121A, MIL-P-15931, 2-3 MILS EACH COAT, TO UNDERWATER HULL, APPENDAGES, SEA CHESTS & STRAINER PLATES UP TO BOTTOM OF BOOTTOPPING AREA MIN DRYING TIME OF 6 HRS BETWEEN COATS OF F-121A MIN DRYING TIME OF 24 HRS SHALL BE ALLOWED BETWEEN LAST COAT & UNDOCKING OF SHIP. PUTTY SCREW HEADS, WHERE COMPOUND IS MISSING, WITH CAULKING COMPOUND CONFORMING TO TT-C-1796 AFTER FIRST COAT OF F-121A SEE NOTE (27)	3 COATS F-129A, MIL-P-15931, 2-3 MILS EACH COAT MIN DRYING TIME OF 6 HRS BETWEEN COATS OF F-129A	ONE COAT NO. 26373 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), LT GRAY TO BOOTTOPPING & BELOW 3-4 MILS TOTAL ONE COAT NO. 26173 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), OCEAN GRAY, ABOVE BOOTTOPPING. MIN DRYING TIME OF 24 HRS SHALL BE ALLOWED BETWEEN LAST COAT & UNDOCKING OF SHIP

WOOD SURFACES TABLE 12	LINE	A SURFACE PREPARATION	B PRIMER	C DECKS, MASTS & SPARS	D ALL OTHER SURFACES	E ACCOMMODATION LADDER	F	G IDENT. MARKINGS
LOCATION: EXTERIOR ABOVE BOOTTOPPING	1	HAND TOOL CLEAN -- OR -- POWER TOOL CLEAN TO REMOVE DETERIORATED COATINGS	ONE COAT F-150, MIL-P-24441 SEE NOTE (1)	ONE COAT NO. 26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL -- OR -- ONE COAT NO. 37038 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL	ONE COAT HAZE GRAY NO. 26270 (FED STD 595) OF MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL	4 COATS NAVSEA APPROVED SPAR VARNISH, 6 MILS MIN		PAINT DESIGNATIONS & MARKINGS MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY); IN LIEU OF WHITE USE LT GRAY, COLOR NO. 26373; IN PLACE OF BLACK USE OCEAN GRAY, COLOR NO. 26173

WOOD SURFACES TABLE 13	LINE	A SURFACE PREPARATION	B PRIMER	C	D BULKHEADS & OVERHEADS	E	F	G DESIGNATION & MARKINGS
LOCATION: INTERIOR COMPARTMENTS	1	HAND TOOL CLEAN -- & -- POWER TOOL CLEAN TO BARE WOOD OR TIGHTLY ADHERING INTACT PAINT	2 COATS FORMULA 84, ALKYD ZINC MOLYBDATE, TT-P-645, 3 MILS DFT		2 COATS DOD-C-24596, WATER BASED INTERIOR LATEX, 5 MILS MAX DFT -- OR -- 2 COATS NAVY FORMULA 25A, WATER-BASED FIRE RETARDANT COATING, 5 MILS MAX DFT SEE NOTES (9)&(17)			FOR COMP'T PIPING & VENTILATION SEE NOTE (18)
	2	SAME AS LINE ONE	ONE COAT F-150, MIL-P-24441		2 COATS DOD-E-24607, 3 MILS ATTACHMENT A, PARA 9 SEE NOTE (17)			SAME AS LINE ONE

VARIOUS LOCATIONS TABLE 14	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F TOTAL SYSTEM	G DESIGNATION & MARKINGS
LOCATION: UNHEATED PIPING, FITTINGS, VALVES	1	HAND TOOL CLEAN, SSPC-SP-2 -- & -- POWER TOOL CLEAN, SSPC-SP-3 ATTACHMENT A, PARA 11	ONE COAT F-84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 MILS	ONE COAT F-84, ALKYD ZINC MOLYBDATE, TT-P-645, 1.5 MILS	2 COATS OF FINISH COAT TO LAGGED SURFACES TO MATCH SURROUNDING AREAS			ONE COAT TT-E-489, 1.5 MILS, FOR COLOR CODED SYSTEMS
	2	SAME AS LINE ONE	ONE COAT F-150, MIL-P-24441, 3 MILS SEE NOTE (1)		SAME AS LINE ONE			
UNHEATED FERROUS MACHINERY EXTERNAL SURFACES	3	SAME AS LINE ONE	SAME AS LINE ONE		ONE COAT F-111, MIL-E-15090, 1.5 MILS -- OR -- ONE COAT NO. 26307 (FED STD 595), MIL-PRF-24635, 3 MILS			
MACHINERY, GAGEBOARDS ATTACHMENT A, PARA 10	4	SAME AS LINE ONE	SAME AS LINE ONE	2 COATS F-111, MIL-E-15090, 3 MILS TOTAL -- OR -- ONE COAT NO. 26307 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL				
FERROUS SHEET METAL SURFACES (UNHEATED, EXTERNAL & INTERNAL)	5	SAME AS LINE ONE	SAME AS LINE ONE	ONE COAT OF FINISH COAT TO MATCH SURROUNDING COMPARTMENT OR AREA				

VARIOUS LOCATIONS TABLE 14 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F TOTAL SYSTEM	G DESTINATION & MARKINGS
LOCATION: BOILERS & ECONOMIZERS (EXCEPT PARTS USED FOR HEAT TRANSFER), MACHINERY CASINGS, FERROUS SHEET METAL & PIPING SURFACES EXCEEDING 125 DEGREES FAHRENHEIT	6	SAME AS LINE ONE	2 COATS OF HEAT RESISTANT PAINT, AMERCOAT 892HS, 3 MILS TOTAL ATTACHMENT A, PARA 10		SAME AS LINE ONE			
ELECTRICAL EQUIPMENT, ELECTRONIC EQUIPMENT & CABLES	7	SAME AS LINE ONE	ONE COAT F-84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 MILS	2 COATS F-111, MIL-E-15090, 3 MILS TOTAL -- OR -- ONE COAT NO. 26307 (FED STD 595), MIL-PRF-24635, 3 MILS TOTAL				
CABLE, INTERIOR (OTHER THAN PVC, LOW SMOKE)	8	SAME AS LINE ONE	2 COATS FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 3 MILS	2 COATS F-25A OR 2 COATS WATER-BASED LATEX PER DOD-C-24596 -- OR -- ONE COAT OCEAN 634 AND 2 COATS OCEAN 9788	2 COATS DOD-E-24607, CHLORINATED ALKYD (FOR COLOR MATCH IF REQUIRED)			
CABLE EXTERIOR (OTHER THAN PVC, LOW SMOKE)	9	SAME AS LINE ONE	SAME AS LINE 7	ONE COAT MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY) TO MATCH SURROUNDING AREA				
ELECTRICAL/ELECTRONIC CABLES (PVC, LOW SMOKE)	10	SAME AS LINE ONE	2 COATS OF DOD-C-24596 WATER-BASED LATEX -- OR -- 2 COATS OF FORMULA 25A -- OR -- ONE COAT OCEAN 634 AND 2 COATS PCEAN 9788		2 COATS OF DOD-E-24607 (FOR COLOR MATCH IF REQUIRED)			

VARIOUS LOCATIONS TABLE 14 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F TOTAL SYSTEM	G DESIGNATION & MARKINGS
ANCHOR (SURFACE SHIP BOW ANCHORS) (FOR ANCHORS BELOW LOWER BOOTTOPPING LIMIT, SEE NOTE (13))	11	NEAR WHITE METAL BLAST, SSPC-SP-10 SEE NOTE (14)	ONE COAT F-150, MIL-P-24441, 2-4 MILS --OR-- ONE COAT MIL-PRF-23236, 3-5 MILS DFT SEE NOTE (1)	ONE COAT F-150, MIL-P-24441, 2-4 MILS --OR-- ONE COAT MIL-PRF-23236, 3-5 MILS DFT SEE NOTE (1)	ONE COAT HAZE GRAY, NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL		7 MILS MIN, 11 MILS MAX	
ANCHOR CHAIN	12	COMMERCIAL BLAST CLEAN, SSPC-SP-6 SEE NOTES (14) & (16)	ONE COAT AMERON PSX 700 TO HOLD BLAST 1-2 MILS --OR-- ONE COAT F-150, MIL-P-24441, 2-4 MILS SEE NOTE (15)	ONE COAT AMERON PSX 700 4-5 MILS --OR-- ONE COAT F-150 OR F-151, 2-4 MILS SEE NOTE (15)	ONE COAT AMORON PSX 700 4-5 MILS --OR- 2-COATS TT-V-51, 2-4 MILS --OR-- 2 COATS MIL-PRF-24635 3 MILS SEE NOTE (15)		10 MILS MIN, 12 MILS MAX	AMERON PSX 700 SEE NOTE (15)
GALVANIZED SURFACES	13	BRUSH OFF BLAST, SSPC-SP-7 -- OR -- POWER TOOL CLEAN, SSPC-SP-3	ONE COAT F-150, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE COAT F-151, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE OR MORE COATS F-152, F-153 OR F-156, MIL-P-24441, 2-4 MILS SEE NOTE (1)		8 MILS MIN, 12 MILS MAX	
EXHAUST PIPE EXTERIOR	14	NEAR WHITE METAL BLAST, SSPC-SP-10		ONE COAT HAZE GRAY NO.26270 (FED STD 595) AMERCOAT 892HS, 2-3 MILS DFT			NOT TO EXCEED 5 MILS DFT	
PCMS	15	STRIP PAINT, USING "PEEL-AWAY-7" SEE PCMS TECHNICAL BULLETIN NO. 4.5-06			ONE COAT HAZE GRAY, MIL-E-24763, AT 3-5 MILS WFT			

STEEL SURFACES TABLE 15	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E	F	G TOTAL SYSTEM
LOCATION: STRUCTURE & FITTINGS BELOW DECK PLATES IN MACHINERY SPACES (BILGES, BILGE WELLS & SUMPS) NOTE: FOR RECOAT OR TOUCH-UP OF EXISTING COATING SYSTEMS ONLY. FOR COMPLETE BILGE COATING, SEE TABLE 7, LINES 7, 8, 9, 10 OR 11	1	HAND TOOL CLEAN, SSPC-SP-2 ATTACHMENT A, PARA 11	ONE COAT F-150, MIL-P-24441, ONE MIL WFT (TACKY STATE) SEE NOTE (1)	ONE COAT F-150, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE COAT F-156, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE COAT F-156, MIL-P-24441, 2-4 MILS SEE NOTE (1)		8 MILS MIN, 12 MILS MAX
	2	SAME AS LINE ONE	MIL-PRF-23236 SEE NOTE (10)					EACH CAOT & TOTAL SYSTEM - APPLY IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED DATA SHEETS. SEE NOTE (11)
	3	POWER TOOL CLEAN TO BARE METAL SSPC-SP-11 ATTACHMENT A, PARA 11	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE	SAME AS LINE ONE		SAME AS LINE ONE
	4	SAME AS LINE 3	SAME AS LINE 2					SAME AS LINE 2

GRP FIBERGLASS SURFACES TABLE 16	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
LOCATION: UNDERWATER HULL (KEEL TO TOP OF BOOTTOP) SERVICE LIFE FOR 2 YEARS OR LESS	1	HIGH PRESSURE WASH TO REMOVE MARINE GROWTH AND LOOSE PAINT -- OR -- TOUCH-UP OR REMOVAL OF PAINT SYSTEM TO SOUND PRIMER BY LIGHT ABRASIVE BLASTING WITH BLACK WALNUT SHELLS CONFORMING TO A-A-1722, TYPE 2 -- & -- SPOT CLEAN, CHAP 631-5.2.6 SEE NOTE (21)&(34)	ONE MIST COAT F-150, MIL-P-24441 SEE NOTE (1)	ONE COAT F-151, MIL-P-24441, 3-4 MILS SEE NOTE (1)		2 COATS F-121A, 2 MILS/COAT, 4 MILS MIN TOTAL, MIL-P-15931, MIN DRYING TIME OF 24 HRS SHALL BE ALLOWED BETWEEN LAST COAT AND UNDOCKING OF SHIP SEE NOTE (27)	2 COATS F-129A, 2 MILS/COAT, 4 MILS MIN TOTAL, MIL-P-15931, MIN DRYING TIME OF 24 HRS SHALL BE ALLOWED BETWEEN LAST COAT AND UNDOCKING OF SHIP SEE NOTE (2)	ONE COAT MIL-PRF-24635, LT GRAY COLOR NO. 26373 TO BOOTTOPPING & BELOW ONE COAT COLOR NO. 26173 (FED STD 595) MIL-PRF-24635, OCEAN GRAY, ABOVE BOOTTOPPING
5 TO 10 YEARS SERVICE LIFE	2	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, MIST COAT -- OR -- KHA303/KHA062 MIST COAT SEE NOTE (4)	ONE COAT INTERNATIONAL FPJ 034/FPA 327, 5 MILS -- OR -- KHA304/KHA062, 5 MILS SEE NOTE (4)		ONE COAT BRA 642 BLACK, ONE COAT BRA 640 RED, 5 MILS/COAT SEE NOTES (2)&(6)	2 COATS BRA 642 BLACK, 5 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE
	3	SAME AS LINE ONE	ONE COAT DEVOE BAR-RUST 235, MIST COAT	ONE COAT DEVOE BAR-RUST 235, 5 MILS		ONE COAT ABC3 BLACK, ONE COAT ABC3 RED, 5 MILS EACH COAT SEE NOTES (2)&(6)	2 COATS DEVOE ABC3 BLACK, 5 MILS EACH COAT SEE NOTE (6)	SAME AS LINE ONE
UNDERWATER HULL (KEEL TO TOP OF BOOTTOP) 5 YEARS SERVICE LIFE	4	SAME AS LINE ONE	ONE COAT HEMPADURE 4515-5063AC(REC), 5 MILS SEE NOTE (5)	ONE COAT HEMPADURE 4515-1148AC(GRAY), 5 MILS SEE NOTE (5)		ONE COAT OLYMPIC 7660-1999AF(BLACK) --&-- ONE COAT OLYMPIC 7660-5111AF(RED), 5 MILS/COAT SEE NOTES (2)&(6)	2 COATS OLYMPIC 7660-1999AF (BLACK), 5 MILS/COAT SEE NOTE (6)	SAME AS LINE ONE

GRP FIBERGLASS SURFACES TABLE 16 (CONT)	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E KEEL TO BOTTOM OF BOOTTOP	F BOOTTOP	G DRAFT MARKS
UNDERWATER HULL METAL APPENDAGES (STRUTS, RUDDERS, & OTHER CAVITATION PRONE AREAS) SERVICE LIFE FOR 2 YEARS OR LESS	5	SAME AS LINE ONE	ONE COAT MIL-P-24441, FORMULA 150, 3-4 MILS SEE NOTE (1)	2 COATS OF INTERNATIONAL PGA 750/751, AT 25 MILS EACH FOR A TOTAL OF 50 MILS DFT		ANTIFOULING PAINT SAME AS SURROUNDING HULL		
5 TO 10 YEARS SERVICE LIFE	6	SAME AS LINE ONE	ONE COAT INTERNATIONAL FPL 274/FPA 327, 3-4 MILS SEE NOTE (4)	SAME AS LINE 5		SAME AS LINE 5 SEE NOTE (6)	SEE NOTE (6)	
	7	SAME AS LINE ONE	ONE COAT DEVOE BAR-RUST 235, 3-4 MILS SEE NOTE (3)	SAME AS LINE 5		SAME AS LINE 5 SEE NOTE (6)	SEE NOTE (6)	
	8	SAME AS LINE ONE	ONE COAT HAMPADUR 4515-5063AC(RED), 3-4 MILS	SAME AS LINE 5		SAME AS LINE 5 SEE NOTE (6)	SEE NOTE (6)	

GRP FIBERGLASS SURFACES TABLE 17	LINE	A SURFACE PREPARATION	B PRIMER	C	D	E HORIZ SURFACES DECKS & FITTINGS	F MASTS & STACKS EXPOSED TO GASES	G VERTICAL SURFACES
LOCATION: EXTERIOR SURFACES ABOVE BOOTTOP SEE NOTE (2)	1	HIGH PRESSURE WASH TO REMOVE MARINE GROWTH & LOOSE PAINT -- OR -- TOUCH-UP OR REMOVAL OF PAINT SYSTEM TO SOUND PRIMER BY LIGHT ABRASIVE BLASTING WITH BLACK WALNUT SHELLS CONFORMING TO A-A-1722, TYPE 2 -- & -- SPOT CLEAN, CHAP 631, PARA 631-5.2.6 SEE NOTE (21)	ONE COAT F-150, MIL-P-24441, 2-4 MILS SEE NOTE (1)	ONE COAT F-151, MIL-P-24441, 2-4 MILS SEE NOTE (1)		ONE COAT DECK GRAY NO. 26008 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), 3 MILS TOTAL	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), OR MIL-E-24763, TYPE-II,CLASS-2, 3 MILS TOTAL	ONE COAT HAZE GRAY NO. 26270 (FED STD 595), MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY), OR MIL-E-24763, TYPE-II, CLASS-2, 3 MILS TOTAL PAINT DESIGNATIONS & MARKINGS MIL-PRF-24635 (LOW SOLAR ABSORPTION ONLY); IN LIEU OF WHITE USE LT GRAY COLOR NO. 26373. IN PLACE OF BLACK USE OCEAN GRAY, COLOR NO. 26173
EXTERIOR WALK AREAS ALL EXTERIOR DECK AREAS	2	POWER TOOL CLEAN TO CLEAN FIBERGLASS (DISC SANDER, ETC.) -- OR -- POWER TOOL CLEAN TO POLYURETHANE OVERLAY SUBSTRATE (DISC SANDER, ETC.) --OR-- HYDROBLAST TO CLEAN FIBERGLASS SEE NOTE (25)	PROPRIETARY NON-SKID PRIMER LISTED ON THE QPL FOR MIL-PRF-24667 -- OR -- MIL-PRF-24483, TYPE I SEE NOTE (7)			ONE COAT MIL-PRF-24667, TYPE I, II OR III, COMP G -- OR -- MIL-PRF-24667, TYPE IV -- OR -- MIL-PRF-24483, TYPE I SEE NOTE (19)		

FIBROUS GLASS BOARDS (INTERIOR) TABLE 18	LINE	A SURFACE PREPARATION	B PRIMER	C BULKHEADS & OVERHEADS				
LOCATION: INTERIOR FIBROUS GLASS BOARDS	1	SOAP & WATER CLEAN & HAND SAND AS NECESSARY	ONE COAT FORMULA 84, TT-P-645, ALKYD ZINC MOLYBDATE, 1.5 MILS	2 COATS WATER-BASED INTERIOR LATEX, DOD-C-24596 -- OR -- 2 COATS NAVY F-25A FIRE RETARDANT INTERIOR LATEX				
	2	SAME AS LINE ONE	ONE COAT F-150, MIL-P-24441 SEE NOTE (1)	2 COATS OF FINISH COAT DOD-E-24607, F-124, 125, OR 126 (COLOR TO BE DESIGNATED)				

NOTES OF TABLES ONE THRU 18

(1) Attachment A, Paragraphs One thru 7 and 12 to MIL-P-24441 coatings.

(2) Boottop - The boottopping is defined as the black area from minimum load waterline at which the ship is expected to operate to 12 inches above the maximum load waterline. The black paint is an antifouling paint conforming to MIL-PRF-24647 for a five to 10-year service life, or MIL-P-15931 for two-year service life. Haze gray shall be carried to the black antifouling paint which marks the upper boottop paint.

(3) Devoe Bar-Rust 235 can be used for cold weather application below 40 degrees Fahrenheit. Apply at five mils DFT (minimum) per coat.

(4) Use accelerator FCA 321 in lieu of FPA 327, or KHA414 in lieu of KHA062, for cold weather application below 40 degrees Fahrenheit.

(5) Use Hempadur 4514 in lieu of 4515 for cold weather applications below 50 degrees Fahrenheit.

(6) A minimum of 24 hours drying time shall be allowed after last coat prior to undocking. For seven year service life, increase each antifouling paint coat to six mils DFT for a total of 12 mils DFT. For 10 year service life, apply one additional coat of antifouling paint for three alternating coats at five mils DFT each, a total of 15 mils DFT.

(7) To ensure a continuous primer base, areas adjacent to those being coated with proprietary primer and non-skid listed on PQL's for MIL-PRF-24667, MIL-PRF-23003, or MIL-PRF-24483, shall be coated with the same primer and compatible topcoat.

(8) For horizontal surfaces, intermediate coats are not needed when non-skid primer qualified to the QPL is applied with the non-skid system.

(9) DOD-E-24607, chlorinated alkyd, may also be used. DOD-E-24607 must be used if surface and ambient temperature are less than 50 degrees Fahrenheit.

(10) For MIL-PRF-23236, Types I, III, or IV shall be used in fuel/salt water ballast service. Qualified paint systems additionally designated Class One may be used with the qualified shop primer - this is generally a new construction issue. Qualified paint systems designated Class 2 are only for salt water ballast tanks - no exposure to fuels or other hydrocarbons is permitted.

(11) Coating to be applied in accordance with data sheet. The maximum coating thickness will be the minimum plus 150 percent of minimum, i.e., for eight mils this will be eight plus 12 (for maximum allowable of 20 mils).

(12) Note deleted.

(13) Anchors below lower boottopping limit shall be painted in accordance with normal underwater hull anticorrosion/antifouling system.

(14) For MCM, and MHC ships, use black walnut shells conforming to A-A-1722, Type II, or garnet MIL-A-21380 or garnet MIL-A-22262, for abrasive blast media.

(15) Anchor chain and detachable links shall be marked and color coated in accordance with NSTM Chapter 581 unless otherwise directed by the invoking Work Item.

(16) Apply one mist coat (one-two mils) of Ameron PSX 700 after blast and prior to remaining coats where invoking Work Item requires anchor chain inspections prior to preservation.

(17) Colors shown in Chapter 631, Tables 631-8-13, and 631-8-14, shall be specified by TYCOM or ship's Commanding Officer per Chapter 631-8.23.4.

(18) Restore each compartment marking in accordance with 2.e and 2.f.

(19) MIL-PRF-24667 and MIL-PRF-23003 non-skid systems shall be applied as complete systems (primer, intermediate coat when MIL-PRF-24667 Type III coatings are invoked, non-skid, and color topping) from the same manufacturer except for the color topping. When a manufacturer does not have approved color topping, use another compatible manufacturer color topping. MIL-PRF-24667, Type I, when required, shall be specified in the invoking Work Item. MIL-PRF-23003 Qualified Product List now only specifies a flexible non-skid coating.

(20) Prior to accomplishing painting of wooden underwater hulls, allow the hull to dry to a moisture content of 15 percent. Readings shall be taken with an electronic moisture meter, Sovereigh Moisture Master or equal. Cover grounding plates and zincs prior to painting.

(21) Blasted surface metal must be decreased following walnut shell blasting. Even traces of residual oil will degrade coating adhesion. Optimum method is to wipe down the blasted surface with a 1:1 solvent mixture by volume of methyl ethyl ketone and mineral spirits. Appropriate safety precautions for working with flammable solvents must be enforced. Alternate procedure is a vigorous soap and water wash followed by pressurized fresh water rinse. Do not use a detergent and fresh water washdown when using aluminum oxide as an abrasive blast medium.

(22) Blasted surface must be cleaned to near white surface finish, or International Courtaulds Marine Paint Company Hydroblasting Standard Very Through Hydroblast HB2-1/2L, leaving surfaces free of paint, corrosion products, dirt, and other contaminants.

(23) Following blasting operations, surface peak-to-valley profile must be checked. If profile of two to three mils is not present, profile must be established, based upon five readings per 1,000 square feet ($90m^2$). Profile measurements shall be taken in accordance with Method C of 2.g.

(24) Blasting with glass beads in accordance with MIL-G-9954 is permitted for shop use in surface preparation of previously painted aluminum structures and non-ferrous valve bodies. Blasting shall obtain the minimum required surface profile for the paint system being applied.

(25) Power impact tool cleaning using power-driven needle guns, chipping or scaling hammers, rotary scalers, single or multiple-piston scalers, or other similar impact cleaning tools shall not be utilized in the cleaning methods.

(26) For application of Sigma Marine Coatings and Sherwin-Williams Dura-Plate UHS Coatings in Tables 4, 5 and 6 maintain the relative humidity in the tank or void space at a maximum of 50 percent from the start of abrasive blasting to cure of the topcoat.

(27) Finish coats for boats and craft shall be as specified in Paragraph 631-9.3.4 through 631-9.3.5 of 2.b unless otherwise specified in the invoking Work Item.

(28) Thermal insulation shall be soap and water cleaned and hand sanded.

(29) Note Deleted.

(30) Grit blasting to near white metal is the preferred method of surface preparation. Only where grit blasting is not possible should power tool cleaning be used. Power tool cleaning should not be used for well deck areas frequently exposed to LCAC exhaust.

(31) A low pressure (3,000 to 5,000 psi) fresh water washdown of the well deck area shall be performed before either grit blasting or power tool cleaning to remove dirt, oil, grease, salts, and loosely adherent coatings.

(32) MIL-P-24441 may be used in lieu of MIL-PRF-23236.

(33) Runs, sags, drips may appear in the coating due to its solvent-free nature and application properties. In the normal application of this product, the appearance of runs, sags, and drips is only superficial and is not detrimental to the coating system. In these cases, no action shall be taken. In cases where the conditions are determined to be detrimental (coating in excess of 50 mils DFT) to the effectiveness of the coating system, immediate action shall be taken. If the wet run, sag, or drip occurs on a dry surface, brush out the run, sag, or drip and reapply the prime coat directly over the brushed out area. It the run, sag, or drip has dried, then the affected area shall be scraped or mechanically removed and the prime coat shall be reapplied.

(34) Prior to blasting, remove all surface contaminants (such as sea salts, grease, oil, loose rust, mud, and marine growth) with 1,000 psi minimum fresh water washdown. This shall be followed by an adequate period of time to allow the surface to dry after solvent cleaning and prior to blasting.

(35) Fill bearing void with Termalene 2 or equal in accordance with CID A-A-50433 after each bearing void installation. Bearing void painting is to be accomplished only when the shaft is removed.

ATTACHMENT A

1. MIL-P-24441 polyamide epoxy paints do not require thinning prior to application. If desired, the low temperature application properties can be improved by the addition of 10 percent by volume of one-to-one mixture of butyl alcohol and high flash naphtha or paint thinner TT-P-291. When sprayed without thinning at the recommended thickness, the paints have no tendency to sag. Apply a thinned mist coat of one to two mils wet film thickness over existing paint.

2. When MIL-P-24441 polyamide epoxy paints are used at a work site having temperatures below 50 degrees Fahrenheit, it is essential that the stand-in period be accomplished in a warm area (70 degrees Fahrenheit) to ensure that the coating will cure.

3. Exterior side shell and underwater body painting at surface temperatures between 25 degrees Fahrenheit and 35 degrees Fahrenheit is not recommended, but can be approved by NAVSHIPREPFAC provided the following conditions are met:

   a. Ambient temperature must be a minimum of five degrees Fahrenheit above the dew point.

   b. Hull surfaces must be absolutely dry and free of any signs of frost and ice.

   c. Drying time will be increased by four hours for a total of eight hours drying time per coat.

   d. No painting is allowed below surface temperature of 25 degrees Fahrenheit.

   e. Paint shall be stored at 70 degrees Fahrenheit for 24 hours before use.

4. Painting shall not be accomplished unless surface is dry and surface temperature is at least five degrees Fahrenheit above the dew point.

5. Approximate temperature of paint components in storage should be estimated in order to judge the amount of stand-in time to allow and the pot life that might be expected. The work site application temperature will greatly affect the time required for the paint to cure, and must be considered in estimating batch size, stand-in time, and cure time.

6. Paints should be sprayed using standard spray guns with applicable spray-pot pressures. The spray guns should be equipped with a middle size (D) needle, nipple, and nozzle set-up. Both conventional and airless equipment are suitable for use with these paints.

7. Catalyzed paints should not be allowed to stand in the spray equipment for extended periods, especially in the sun (increasing temperature cures the paint more rapidly). The pot life of the paint mixture (components A and B) is six hours at 73 degrees Fahrenheit.

8. Total DFT specified in Table 4 for potable water tanks shall not be exceeded except in isolated areas adjacent to shapes and stiffeners. In no case shall the maximum DFT be exceeded by two mils. The isolated areas shall be less than two percent of the total area.

   a. For touch-up or overcoating intact aged paint in good condition, the same requirements for each coat apply, and the total film thickness maximum requirement may be corrected to allow for thickness of underlying aged paint. Requirement is to avoid excess thickness in individual coats. High DFT resulting from the application of extra coats of paint is not considered to be a problem below 35 mils total DFT.

9. Formula 124, DOD-E-24607 tinted with DOD-C-22325 may be used when none of the approved colors are available. However, this should be a last resort.

10. Apply heat-resisting paint (TT-P-28) to surfaces, whether insulated or not, where operating temperature is over 400 degrees Fahrenheit. Heat-resisting paint should also be applied to normally uninsulated hot metal surfaces such as boiler drum gages and pressure gage piping. Heat-resisting paint is highly flammable during application and should not be applied where surface operating temperatures exceed 85 degrees Fahrenheit. Proper application is two thin coats on well-prepared, dry metal surfaces.

11. Avoid excessive power wire brushing that results in a polished surface.

12. Epoxy primers applied in the vicinity of abrasive blasting must be sheltered from airborne contaminants. Abrasive particles trapped in wet paint films are a source of premature blistering and film failure.

13. Apply three coats of a vapor barrier coating compound, MIL-C-19565, in contrasting colors (white-orange-white), to insulation within laundries, sculleries, galleys, drying rooms, and to insulation on the warm side of refrigerated stores spaces.